

Surface shining blackish brown. Margined dorsad by a moderately broad buffy band which, unlike in *decipiens*, is continued around the cephalic margin of the pronotum and also covers all (instead of only slightly over half) but the sutural margin of the tegminal pads. Caudad the fifth and sixth abdominal tergites have their free margins narrowly paler, the succeeding tergites (two of these very narrow and often hidden) wholly dark, but the supra-anal plate buffy disto-mesad. Cerci dorsad solidly dark proximad but with distal half buffy, ventrad buffy with extensive proximal portions of proximal segments alone dark. Ocellar spots and limbs brownish buff. Abdomen ventrad, unlike in *decipiens*, with lateral margins (but not distal margin of subgenital plate) narrowly buffy.

The color differences from *decipiens* are more significant since the described series of *thaxteri* is very dark in general coloration but the pale markings are both more numerous and more extensive.

The fourteen paratypic females are divided between the Museum of Comparative Zoology and the author's collection.

Length of body 7.7 to 9.6, length of pronotum 2.13 to 2.84, width of pronotum 3.12 to 4.26, exposed length of tegmen 1.06 to 1.49, greatest width of tegmen .62 to .80 mm. (by micrometer).

Notes on Coleoptera.—No. 3.

By J. N. KNOLL, Pennsylvania Forest Research Institute.

(Continued from page 45.)

BOSTRICHIDAE

XYLOBIOPS BASILLARE Say. Reared in numbers from dead wild grape vine collected at Mont Alto.

CERAMBYCIDAE

TESSAROPA TENUIPES Hald. Adults were reared from dead chestnut (*Castanea dentata* Marsh.) branches about 3/16 of an inch in thickness collected at Mont Alto. The insect was found to pass the winter in both the larval and pupal stages.

HYPERMALLUS INCERTUS Newm. This insect was found working in the thick outer bark of dead rock oak (*Quercus prinus* Linn.) in Clark's Valley. The larvae had made irreg-

ular galleries through the bark and were passing the winter in their pupal cells.

CENTRODERA PICTA Hald. A living unhardened adult was chopped from its pupal cell in the decayed part of a living yellow birch (*Betula lutea* Mich.) at Laporte, September 7.

ANOPLODERA RUBRICA Say. Reared from the dead decayed wood of hickory collected in Clark's Valley.

A. MINNESOTANA Csy. Reared from the dead decayed wood of hickory and black gum (*Nyssa sylvatica* Marsh.) collected in Clark's Valley.

A. BIFORIS Newm. This insect was found breeding in decayed hemlock (*Tsuga canadensis* Linn.) stumps at Cold Springs, Adams County.

A. MUTABILIS Newm. Reared from the dead decayed wood of willow and black gum (*Nyssa sylvatica* Marsh.), wild black cherry (*Prunus serotina* Ehr.) and black birch (*Betula nigra* Linn.) collected in Clark's Valley.

TYPOCERUS VELUTINUS Oliv. Reared from the dead decayed wood of hickory collected in Clark's Valley.

ENCYCLOPS COERULEA Say. Found breeding in the outer bark of living black ash (*Fraxinus nigra* Marsh.) on the Mont Alto State Forest.

NEOCLYTUS KIRBYI Auriv. Reared from the dead branches of post oak (*Quercus stellata* Wang.) collected in Clark's Valley.

ANTHOBOSCUS RURICOLA Oliv. Reared from the wood of dead red maple (*Acer rubrum* Linn.), linden (*Tilia americana* Linn.) and striped maple (*Acer pennsylvanicum* Linn.) collected in Clark's Valley.

CLYTUS MARGINICOLLIS Cast. Reared from the dead branches of long-leaved pine (*Pinus palustris* Mill.) collected at Cape Henry, Va.

PURPURICENUS HUMERALIS Fab. Reared from dead black locust (*Robinia pseudo-acacia* Linn.) seedling about $\frac{3}{4}$ of an inch in diameter collected in Clark's Valley.

P. AXILLARIS Hald. Reared from pruned branches of rock

oak (*Quercus prinus* Linn.) and post oak (*Q. stellata* Wang.) collected in Clark's Valley.

AEGOMORPHUS DECIPIENS Hald. Reared from dead blue beech (*Ostrya virginiana* Miller) collected at Bald Eagle and from dead willow collected in Clark's Valley.

LEPTURGES SIGNATUS Lec. Reared from dead branches of basswood (*Tilia americana* Linn.), black oak (*Quercus velutina* Lamb.) and chestnut (*Castanea dentata* Marsh.) collected in Clark's Valley.

HYPERPLATYS MACULATA Hald. Reared from a dead branch of willow collected in Clark's Valley

H. ASPERSA Say. Reared from dead shadbush (*Amelanchier canadensis* Linn.) branches collected in Clark's Valley.

ACANTHOCINUS NODOSUS Fab. Reared from the bark of dead pitch pine (*Pinus rigida* Miller) collected at Mont Alto. The larvae work through the bark and form pupal cells within it the latter part of July.

ECYRUS DASYCERUS Say. Adults reared from dead basswood (*Tilia americana* Linn.) branches collected in Clark's Valley.

EUPOGONIUS TOMENTOSUS Hald. Reared from dead long-leaved pine (*Pinus palustris* Miller) branches collected at Cape Henry, Va.

OBEREA SCHAUMI Lec. Adults reared from living large-toothed aspen (*Populus grandidentata* Mich.) and American aspen (*Populus tremuloides* Mich.) collected at various points on the Allegheny Plateau. Trees up to 3 inches in diameter are some times infested and the larvae do not work down into the roots as some of the other members of the genus do. The work is usually up the stem including side branches, with holes to the exterior at different points for exuding frass.

O. TRIPUNCTATA Swed. Reared from branches of living mocker nut hickory (*Cary alba* Linn.) collected in Huntingdon County; also from a living branch of witch-hazel (*Hamamelis virginiana* Linn.) collected in Clark's Valley.

O. TRIPUNCTATA var. *mandarina* Fab. Reared from a living branch of sweet viburnum (*Viburnum lentago* Linn.) collected at Pond Bank.

CURCULIONIDAE

EUSPHYRUS WALSHI Lec. Reared from dead bittersweet (*Celastrus scandens* Linn.) vine collected in Clark's Valley.

BRACHYRHINUS SULCATUS Fab. Numerous plants of English ivy (*Hedera helix* Linn.) were practically defoliated by the adults of this species which appeared in numbers the latter part of June. The adults are nocturnal and could not be found in the day time.

THYSANOCNEMUS BISCHOFFI Blatch. White ash (*Fraxinus americana* Linn.) seeds infested with the larvae of this insect were found at Good Siding, Franklin County, by Prof. G. S. Perry and Chester A. Coover. The larvae crawl from the seeds in the spring after they have fallen to the ground and enter the soil for pupation. Not more than one larva was found to a seed and dark spots on the outside of the infested seeds indicated the points where the eggs had been laid. Mr. Coover figured that 7.3% of the seeds on the trees were infested. The seeds from the tops showed 3.65% weeviling; the middle portions 6.85% and seeds from the bases of the trees showed 11.3% infestation. (Species determined by L. L. Buchanan.)

CEUTORHYNCHUS RAPAE Gyll. Adults were destructive to nasturtium foliage during June and the fore-part of July, at Mont Alto. The feeding was usually at the edges of the leaves. (Species determined by L. I. Buchanan.)

CRYPTORHYNCHUS FALLAX Lec. Reared from dead basswood (*Tilia americana* Linn.) branches collected in Clark's Valley. (Determined by Chas. Liebeck.)

SCOLYTIDAE

SCOLYTUS PICEA Sw. Near Bernice, small black spruce (*Picea mariana* Miller) affected by the 1930-31 drought were infested with this insect. The adults emerged from caged sticks in September.

CNESINUS STRIGICOLLIS Lec. This insect was found overwintering in the adult stage in small twigs of dead chestnut (*Castanea dentata* Marsh.) at Mont Alto. The adults had burrowed out the central portions of the stems and usually

two beetles were found in one gallery. (Determined by Dr. M. W. Blackman.)

MICRACIS OPACIOLLIS Lec. Adults found through the winter months in small dead chestnut (*Castanea dentata* Marsh.) twigs at Mont Alto.

CORTHYLUS PUNCTATISSIMUS Zimm. August 1, F. M. Trimble called the writer's attention to this species working in the stems of fetter bush (*Leucothoe catesbaei* Walt.) at Frazer.

CONOPHTHORUS CONIPERDA Sz. Dead adults of this species were found in small immature cones of pitch pine (*Pinus rigida* Miller) at Mont Alto.

PITYOPHTHORUS PULCARIUS Zimm. This insect was found working in the immature cones of pitch Pine (*Pinus rigida* Miller) at Mont Alto, and in the small stems of Austrian pine (*Pinus laricio* var. *austriaca* Endl.) affected by the 1930-31 drought at Philadelphia. (Determined by Dr. M. W. Blackman.)

P. NUDUS Sw. Found breeding in the small dead branchlets of Scotch pine (*Pinus sylvestris* Linn.) at Pond Bank.

P. BELLUS Blackm. Adults were taken under the bark of dead Scotch pine (*Pinus sylvestris* Linn.) collected at Pond Bank on July 24. (Determined by Dr. M. W. Blackman.)

P. MUDUS Blackm. July 31, adults were found under the bark of black spruce (*Picea mariana* Miller) trees killed by drought near Bernice. (Determined by Dr. M. W. Blackman.)

P. PULCHELLUS Eich. Adults were found under the bark of pruned Austrian pine (*Pinus laricio* var. *austriaca* Endl.) branches at Mt. Carmel, August 1.

PITYOGENES LECONTEI Sw. Adults of this species were found under the bark of dead Scotch pine (*Pinus sylvestris* Linn.) at Pond Bank, on March 8; working under Virginia scrub pine (*Pinus virginiana* Miller) bark in Kansas Valley, Perry County, on May 11 and under the bark of red pine (*Pinus resinosa* Aiton) at York, on May 20.

Dr. M. W. Blackman kindly determined the specimens and compared the material with the type in the Leconte collection.

Since this species was described* from a unique female in

* J. M. Swaine — Tech. Publication No. 2, N. Y. State Col. Forestry, v. 16, No. 1, 1915.

the Leconte collection, a brief description of the male is as follows:

Robust, reddish brown in color. Head with front broad, slightly convex, punctate toward vertex, granulate punctate below, a shining flat impunctate median area; clothed with fine pubescence. Eyes oval, coarsely granulate, inner margin sinuate. Antennae lighter in color than the rest of the insect, club flattened, circular in outline, first and second sutures nearly straight.

Pronotum longer than wide, slightly wider than elytra, widest back of middle, constricted at base, sides subparallel, broadly arcuate anteriorly, anterior margin elevated, serrulate, surface covered with blunt asperities toward front, posteriorly coarsely but not closely punctate, a medium longitudinal raised smooth impunctate area and an oval lateral areas on each side, pubescence of disk sparse, longer and denser laterally.

Elytra with sides subparallel, accurate anteriorly, surface shining, coarsely punctured toward base, punctures diminishing in size and surface becoming somewhat rugose near declivity, punctures irregularly placed, those of interspaces nearly equal in size, pubescence long, sparse. A long slender tooth curved downward at tip, arising from opposite the end of the second atria, elevated margin of declivity with several blunt tubercles, a prominent tooth on each side near apex.

Size of males ranging from 2 mm. long, .8 mm. wide, to 2.8 mm. long and 1 mm. wide.

ANISANDRUS OBESUS Lec. Adults were chopped from their burrows in dying large-toothed aspen (*Populus grandidentata* Mich.) on July 3, at Promised Land Lake, Pike County. (Determined by Dr. M. W. Blackman.)

A. SAYI Hopk. Adults were found working in dying fire cherry (*Prunus pennsylvanica* Linn.) at Laporte, July 24, and dead chestnut (*Castanea dentata* Marsh.) branch in Clark's Valley, February 14. (Determination by Dr. M. W. Blackman.)

DRYOCOETES BETULAE Hopk. Adults, larvae and pupae of this insect were found under the bark of a dying mountain ash (*Pyrus americana* Marsh.) at Ricketts, on September 7.

LYMANTOR DECIPIENS Lec. Adults were found in a small branch of dead witch-hazel (*Hamamelis virginiana* Linn.) in Clark's Valley. (Determined by Dr. M. W. Blackman.)